

Date: Mon, 29 Nov 93 21:29:46 PST
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #1403
To: Info-Hams

Info-Hams Digest Mon, 29 Nov 93 Volume 93 : Issue 1403

Today's Topics:

 Att: School Teachers who use Amateur Radio in the classroom
 Baycom and OS/2
 Calculating SWR
 License datapoints.... :)
 New to HAM
 question about Yaesu FT 416
Repeater calling procedure (Was: Elmers are dead, god help us hams!) (3 msgs)
 Response to tech study manual inquiry
 RF level of TS520 ext VF0??
 solid no LID
 Talk America Radio Network
 Those triangles on the AM dial.....

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 29 Nov 93 10:25:01 GMT
From: ogicse!cs.uoregon.edu!sgiblab!swrinde!cs.utexas.edu!not-for-
mail@network.ucsd.edu
Subject: Att: School Teachers who use Amateur Radio in the classroom
To: info-hams@ucsd.edu

Are you a school teacher (K-12) who uses ham radio in the classroom or do
you know someone who does? Are your students interested in ecology? The
environment? The Tropical Forest?

If so, then we have an offer for you. Jeanette KB5TFX / V31FX is a

graduate student here at the University of Arkansas. She is studying the effects of forest fragmentation (deforestation) on various bird populations in Belize. She also has a solar-powered HF station at her camp.

One of the reasons that she has the radio is so that she can set up radio schedules with students in order to help educate them about the environment. She is quite willing to speak to students of any age about her research, Belize or the environment.

She will be in Belize from January to June and her station is capable of working 80-10 m (no WARC). If you think this will fit into your lesson plans, write to me at <plaws@comp.uark.edu>.

TNX ES 73,

Peter Laws
N5UWY / V31WY

Peter Laws <plaws@comp.uark.edu> | "That's the President of the United States
n5uwy@ka5bml.ar.usa.noam | you're talking about, pinhead."-VP Al Gore

Date: 30 Nov 93 03:58:26 GMT
From: ogicse!uwm.edu!spool.mu.edu!howland.reston.ans.net!noc.near.net!
news.delphi.com!chdaley@network.ucsd.edu
Subject: Baycom and OS/2
To: info-hams@ucsd.edu

>I have a 386-25 and am guessing the level of interrupt activity in an
>already busy system would make it impossible--but I don't want to plunk
down
>\$100 for a new 1200 baud modem just yet!
>
>Thanks,
>__jeffrey weiss NOIRR
>

I shouldn't think that you would have any problem. The modem in a Baycom should be a type 202 asynchronous modem and shouldn't present any more of a burden to your OS/2 system than any other type of modem. Just how much stuff are you doing with your "already busy system?"

* Chuck Daley KD4LXQ Internet: chdaley@delphi.com *
* 10565 Willow Meadow Circle Compuserve: 73457,3114 *

* Alpharetta, GA 30202 Genie C.DALEY.1 *

Date: 29 Nov 1993 16:50:23 GMT
From: swrinde!cs.utexas.edu!math.ohio-state.edu!news.acns.nwu.edu!
casbah.acns.nwu.edu!rdewan@network.ucsd.edu
Subject: Calculating SWR
To: info-hams@ucsd.edu

In article <754583670.19snx@mu.apana.org.au>,
James Morris <jmorris@mu.apana.org.au> wrote:
>In article <1993Nov26.200816.19512@combdyn.com> lawrence@combdyn.com writes:
>>
>>How do you calculate SWR? I have a power meter...and I can measure the forward
>>and reflected power. How to I take the two values to determine the SWR?
>>
>>Right now I have forward power of 5 Watts and reflected power of 0.1 Watts,
>>what SWR would that correspond to?
>
>I am not trying to be mean, but did you sit a radio theory test for your
>amateur license ?
>

Different parts of the hobby attract different people. I personally find
the technical aspects most fascinating.

Here is a long and a short answer.

Short: Let $\rho = \sqrt{\text{reverse power}/\text{forward power}} = \sqrt{0.1/5}$
 $= \sqrt{0.02} = 0.1414$

$$\text{swr} = (1 + \rho)/(1 - \rho) = 1.414/0.8586 = 1.65$$

- Caveats:
- i) meters are notoriously noisy in measuring at low power levels
 - ii) isolation may not be high enough to measure really low swrs (i.e., the forward power affects the reverse reading)
 - iii) this is of course at the point of measurement. It will be higher at the antenna feed point. The difference is because of line attenuation.

A few more details to make a little longer answer.

Voltage Standing Wave Ratio (VSWR) or just SWR is the ratio of the
maximum peak voltage to the minimum peak voltage on a transmission line.

A mismatch results in some of the power being reflected back to the transmitter. So the line has voltages from both, the power going towards the antenna and from the power being reflected back. The peak voltages add up in some parts and subtract in some parts.

$$VSWR \text{ or } SWR = V_{max}/V_{min} = (V_{pf} + V_{pr})/(V_{pf} - V_{pr}) \quad (1)$$

where V_{pf} is peak forward voltage and V_{pr} is the peak reverse voltage.

$$\text{Now } V_{pf} = \sqrt{\text{forward power} \times 2 / r} \quad (2)$$

$$V_{pr} = \sqrt{\text{reverse power} \times 2 / r}.$$

Substituting in the above definition, doing some algebra and utilizing the definition of rho above, you will derive the first equation thusly:

$$\begin{aligned} SWR &= (V_{pf} + V_{pr})/(V_{pf} - V_{pr}) && \{\text{dividing by } V_{pf}\} \\ &= (1 + V_{pr}/V_{pf})/(1 - V_{pr}/V_{pf}) && \{\text{substituting power for voltage from} \\ &= (1 + \sqrt{V_{pr}/V_{pf}}) / (1 - \sqrt{V_{pr}/V_{pf}}) && \text{equation 2 above}\} \\ &= (1 + \rho) / (1 - \rho) && \{\text{utilizing the definition of } \rho\} \end{aligned}$$

There is also a more detailed explanation of the physics of the whole thing, but I leave the details to Tom Bruhns. :)

Rajiv
aa9ch
r-dewan@nwu.edu

Date: 29 Nov 93 13:06:08 GMT
From: ogicse!emory!europa.eng.gtefsd.com!howland.reston.ans.net!cs.utexas.edu!not-for-mail@network.ucsd.edu
Subject: License datapoints.... :)
To: info-hams@ucsd.edu

Got my callsign today - N1QVE
Received on 29 November; effective date was 23 November.
I took the test on 10 October (7 weeks + 1 day).
It's an honor to join the ranks of amateur radio. 73s.

+-----+
Harry White white@sleepy.ctstateu.edu white@csusys.ctstateu.edu
N1QVE Central Connecticut State University, New Britain, CT 06050
- -- +- -- -

"The real meaning of the word _educate_ is _to lead the way out_." -Anais Nin
+-----+

Date: 26 Nov 93 12:18:51 GMT
From: amd!amdahl!dlb!daver!tscs!tbag!mrexshun@decwrl.dec.com
Subject: New to HAM
To: info-hams@ucsd.edu

I have just gotten into HAM radio from Computers and was wondering if one of you could send me the FAQ for this newsgroup.

Best Regards,
_ ' Pete Baker

{~}
(V-)
"|Y|"
||| =====

Tampa Bay Amiga Group
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(813) 889-9465 * (813) 889-9467
mrexshun@tbag.tscs.com -or- mrexshun%tbag@uunet.uu.net

Date: Mon, 29 Nov 1993 15:23:20 GMT
From: olivea!news.bu.edu!att!cbnews!hellman@ames.arpa
Subject: question about Yaesu FT 416
To: info-hams@ucsd.edu

My teenage son is saving to buy a small HT. He likes the RS HTX202 but finds it too bulky for his crowded book bag. He is considering the Yaesu FT 416. Any strong feeling for or against? (Dual banders and the Icom P2AT are out of his price range)
tnx for any help Shel WA2UBK dara@physics.att.com

Date: 29 Nov 93 10:33:49 EST
From: psinntp!arrl.org@uunet.uu.net
Subject: Repeater calling procedure (Was: Elmers are dead, god help us hams!)
To: info-hams@ucsd.edu

In rec.radio.amateur.misc, sds@cs.brown.edu (Scott Swanson) writes:
>>If you want to talk to someone on a repeater, just say so.
>>"Monitoring" means just that. Call CQ, or say "anyone wanna talk?" or
>>something like that if you just want someone to chat with; "monitoring"
>>doesn't mean "CQ".

>Hmm... from what I had heard, the convention was that "monitoring" was
>"I'm here to talk" and "CQ" was expressly verboten on VHF/UHF
>repeaters.
>

>I think that an ARRL pamphlet I saw on using repeaters echoed that
>sentiment.

>

>Is it just a regional/group/repeater difference?

I believe the pamphlet you're referring to is Welcome to Amateur Radio,
which I wrote (sent by the ARRL free to all new Amateur Radio licensees).
Here's the lowdown:

The information was taken from personal experience and extensive
contact with friends, ARRL officials and many various "random"
repeater owners and users around the US over a few years. The use of
"WS10 monitoring" or "WS10 listening" is essentially the de facto
standard way of announcing that you're on the machine and would enjoy
a QSO. Calling CQ is in no way "expressly verboten," it's just generally
considered substandard operating procedure on VHF repeaters (as is the
use of Q signals and CW abbreviations, eg, XYL, HI, etc).

You can call CQ, but I'd bet that most hams--especially those with
some experience--would take you for, at best, an uninformed newcomer
or, at worst, a lid. Then, depending on the other hams' attitudes,
they'd either politely instruct you or rudely rag you out. 8-)

There may well be regional variations and differing preferences.
It's not an edict, just a recommendation. Enjoy the machines and
help a new ham!

As conductor or QST's FM column, I welcome any comments, suggestions,
constructive criticism or other correspondence!

CUL es 73 de BB

```
* * * * *
* * * * * HAPPY HOLIDAYS FROM WS10 RADIO! * * * * *
* * * * *
```

```
*****
Brian Battles, WS10      I Internet   bbattles@arrl.org   I "Radio amateurs
QST Features Editor     I Compu$erve 70007,3373   I do it with high
ARRL HQ                 I NVN         bbattles       I frequency"
Newington, CT USA 06111 I MCI Mail   215-5052       I
Tel 203-666-1541        I Amprnet   ws1o@ws1o-2.ampr.org [44.88.2.43]
Fax 203-665-7531        I Amateur   packet WS10 @ W1EDH.CT.USA.NA
*****
```

COMMENTS EXPRESSED HEREIN ARE MY OWN PRIVATE, PERSONAL REMARKS
AND ARE IN NO WAY TO BE CONSIDERED OFFICIAL ARRL VIEWS OR POLICY.

Date: 29 Nov 93 22:47:59 GMT
From: mnemosyne.cs.du.edu!nyx10!jmaynard@uunet.uu.net
Subject: Repeater calling procedure (Was: Elmers are dead, god help us hams!)
To: info-hams@ucsd.edu

In article <bote.754601083@access>, John Boteler <bote@access.digex.net> wrote:
>I'll cite a local ham's technique as
>an example of a perfectly effective and non-obnoxious
>way to stir up a conversation:
>"CQ from W3AEZ"
>There. That wasn't so bad. :) Short and right
>to the point.

Maybe where you're from; here in Texas, you'd be marked as an HF transplant.
Yes, there are regional differences.

>Examples he mentioned included saying "BREAK" multiple times
>to mean what you really mean, namely "EMERGENCY";

I don't understand this one either...but it's the case here as well.

>saying "monitoring" when you really mean "CQ" or
>"anybody there" ("QRZ?" also falls into this category.)

That's actually a bit formal among most Texas repeater users: we just toss
our call out there, and if someone else feels like talking, they start a
conversation. "K5ZC." (If I'm feeling verbose, and in my truck, it'll be
"K5ZC mobile 5"; yes, I've been around that long.) "Hey, Jay...what's up?
WD5IYT." And so on.

>I could understand it if it was merely local preference.

The truth doesn't necessarily come exclusively from Washington, in ham radio
operating practices as in anything else.

>It's too bad that a newcomer's pamphlet distributed by
>a national ham radio organization perpetuates these mis-uses.

To you, it's a misuse; to many of the rest of us, it's a good shot at giving a
newcomer a leg up on sounding like he knows what he's doing.

A similar disagreement exists in the aviation community...just ask any group
of pilots about using the term "with you" to tell air traffic control that
you've switched frequencies as assigned, and watch the fur fly. (Aviation
normally has much tighter radio procedure than anything else I've heard except

military nets; even the average light plane pilot tries hard to follow it because it makes him sound more professional, and that gets him better handling.)

>Please fix it.

How about noting that the preferred usage varies from region to region, and suggest that the newcomer listen for a few days to get a feel for how folks in his area do it?

--

Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can
jmaynard@oac.hsc.uth.tmc.edu | adequately be explained by stupidity.

"The road to Usenet is littered with dead horses." -- Jack Hamilton

Date: Mon, 29 Nov 1993 17:43:26 GMT

From: mentor.cc.purdue.edu!sage.cc.purdue.edu!blumb@purdue.edu

Subject: Repeater calling procedure (Was: Elmers are dead, god help us hams!)

To: info-hams@ucsd.edu

bbattles@arrl.org (Brian Battles WS10) writes:

>In rec.radio.amateur.misc, sds@cs.brown.edu (Scott Swanson) writes:

>someone wrote >

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>standard way of announcing that you're on the machine and would enjoy

>a QSO. Calling CQ is in no way "expressly verboten," it's just generally

>considered substandard operating procedure on VHF repeaters (as is the

>use of Q signals and CW abbreviations, eg, XYL, HI, etc).

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>some experience--would take you for, at best, an uninformed newcomer
>or, at worst, a lid. Then, depending on the other hams' attitudes,
>they'd either politely instruct you or rudely rag you out. 8-)
>
> There may well be regional variations and differing preferences.
>It's not an edict, just a recommendation. Enjoy the machines and
>help a new ham!

I spent several weeks listening to the local repeaters on my HTX202 I
purchased used the week after passing my test.

I was going to take my HT to a friend's apt. and check the SWR of a 1/4w I
made using his wattmeter.... on my way out of my apt. building, I checked
my mailbox. 30 seconds later, I was keying up. :)

"N9VLS monitoring...."

Two hams who were chatting about traffic seemed utterly oblivious to my
call.... a third ham joined in.... then, I hear:

"You know...I thought I heard a new ham in there...."

"Bet he's a no-code...."

"Let's drag him in shall we?"

"Yeah, let's..."

"N9VLS, N9VLS, <callsign removed to protect the local ham community>,
welcome to ham radio."

Fun welcome.

--

Bill Blum N9VLS blumb@sage.cc.purdue.edu Purdue University, W. Lafayette, IN
Reality is for those who can't handle subscribing to IASFM and Model Railroader

Date: 30 Nov 93 05:10:39 GMT
From: news-mail-gateway@ucsd.edu
Subject: Response to tech study manual inquiry
To: info-hams@ucsd.edu

I am a soon-to-be Tech plus and I studied out of the Look Who's Talking
book, even though I knew it was out of date. Granted, the question pool has
changed, but not significantly; I aced element 3A and got 1 wrong on element
2. In addition, I got 17/25 correct on 3B; there's something right about
that study guide!

I believe there are computer programs available for anonymous FTP that have
the current question sets.

N9???

Scott Gigot

segigot@students.wisc.edu

Date: 29 Nov 93 23:34:03 GMT

From: ogicse!hp-cv!hp-pcd!hpcvsnz!tomb@network.ucsd.edu

Subject: RF level of TS520 ext VFO??

To: info-hams@ucsd.edu

Anyone know what the RF level at the external VFO input of a Kenwood TS-520S should be? And what the impedance looking into that port is, approximately? -- Thanks in advance for any help.

73, K7ITM

Date: Mon, 29 Nov 1993 20:42:29 GMT

From: news.bu.edu!att!cbnewsm!jeffj@decwrl.dec.com

Subject: solid no LID

To: info-hams@ucsd.edu

In article <2d5igu\$8bs@vtserf.cc.vt.edu> benjy@benjy.cc.vt.edu (Ben E. Cline) writes:

>In article <9311221642.AA18541@ocpfcad> krt@ocpfcad.ATT.COM writes:

>> Scott NF3I writes,

>> >So where did the phrase "Lid" come from, we always used to ask....

>>

>> My beginning attempts at cw contacts were quite stressful. During each >contact I would copy something like.. "/fb niqe to meet v, so LID qpq".

>What was wrong with my radio or was it ME ? Why does everyone I qso with

>call me a LID ? After some ti

I had a similiar thing happen. I working this ham back in my slow speed days (8wpm or so) and he sent "SO LID CPY" after each time I turned it over to him. I kept going with the QSO because I couldn't believe that he was actually sending that to me. After the QSO I looked a little closer at what I wrote down and it dawned on me (bright boy that I am) that he was actually sending "SOLID CPY". Kinda nice to see that I wasn't the only ham that made this mistake! 8-)

Jeff

--

Jeff Jones AB6MB | Vote out those who voted for the North American
jeffj@seeker.mystic.com | Free Trade Agreement!
Infolinc BBS 510-778-5929 |

Date: 30 Nov 93 01:59:10 GMT
From: noc.near.net!news.delphi.com!usenet@uunet.uu.net
Subject: Talk America Radio Network
To: info-hams@ucsd.edu

I'm inteI'm interested in the summaries! I'd be happy if there's a station on
that
list in the Richmond, VA area.

73 de Jason, KD4ACG
JTRI0LO@delphi.com

Date: Mon, 29 Nov 1993 14:42:13 GMT
From: nevada.edu!news.unomaha.edu!cwis.unomaha.edu!rerickso@uunet.uu.net
Subject: Those triangles on the AM dial.....
To: info-hams@ucsd.edu

The idea was that stations authorized to operate during
a national emergency would go to either 640 kHz to 1240 kHz.
I recall the idea was to create graveyard channels to make
it difficult for missiles or aircraft to be able to use
the broadcast stations as a beacon to home in on to.

73,

Ron
AK0N

Date: Mon, 29 Nov 1993 15:45:36 GMT
From: pacbell.com!sgiblab!sgigate.sgi.com!olivea!news.bu.edu!att!cbnewsm!
jeffj@network.ucsd.edu
To: info-hams@ucsd.edu

References <199311250059.QAA26710@ucsd.edu>, <CH6u4n.DE3@freenet.carleton.ca>,
<CH7169.Kzy@news.Hawaii.Edu>
Subject : Re: Starter Station not so bad!

In article <CH7169.Kzy@news.Hawaii.Edu> jherman@uhunix3.uhcc.Hawaii.Edu (Jeff

Herman) writes:

>In article <CH6u4n.DE3@freenet.carleton.ca> al602@Freenet.carleton.ca (Jim Jindrick) writes:

>>

>>In a previous article, IQC109@URIACC.URI.EDU (Ken Carr..KB1AWV) says:

>>

>>>I recently read a post indicating that Ham Radio is overly expensive.

>>>I agree that it can be very expensive, but it does not have to be. I have

>>>a few examples:

>

>>>I'm easing my way into this hobby and I'll bet others could lowbuck it even
>>>better than I have!

I bought my first rig, Swan 700, for \$300, a G5RV for \$29 and a tuner for \$30, coax for \$10. Now being a old time ham (2 1/2 years 8-)) I could do it much cheaper. I just bought a Atlas 210X for \$150 and I now know how to build a multiband dipole for less then \$5 which doesn't need a tuner. So that works out to be \$150 plus \$5 plus \$10 equals \$165 to get started! Want cheaper? How about building your own 5 watt QRP rig for less then \$70? Now your talking \$85 to get started. Every single bit of gear in my shack is used and it all works great! I have a tuner, swr meter, MFJ signal enhancer, CW keyboard, a couple of used speakers, power supply, headphones. I love used gear! I am not about to pay over a \$500 for any rig no matter how good it is. Well maybe a Omni VI for that price. 8-) 73!

Jeff

--

Jeff Jones AB6MB | Vote out those who voted for the North American
jeffj@seeker.mystic.com | Free Trade Agreement!
Infolinc BBS 510-778-5929 |

Date: Mon, 29 Nov 1993 18:05:53 GMT

From: ncrgw2.ncr.com!ncrhub2!law7!cn292.DaytonOH.NCR.COM.25.149.IN-ADDR.AR !
jra@uunet.uu.net

To: info-hams@ucsd.edu

References <1993Nov23.113409.29442@ke4zv.atl.ga.us> ,

<931125.44433.EDELLERS@delphi.com> , <1993Nov27.142728.17151@ke4zv.atl.ga.us>

Subject : Re: CONELRAD-what was it?

In article <1993Nov27.142728.17151@ke4zv.atl.ga.us> gary@ke4zv.atl.ga.us (Gary Coffman) writes:

>Before my time. I didn't start working in broadcast until 1964. Another

>maybe interesting bit of trivia, however. There was one AM station in
>the US that was authorized to run 500,000 watts in case of emergencies.
>It's a Cincinnati station, WLW, whose monster tower is north of the city
>on the right of I-75 as you're heading to Dayton. A former co-worker was
>a transmitter engineer there, and had some great pictures of the transmitter
>plant. Seems the government wanted an alternative to CONELRAD where they
>could blanket the country, at night one assumes, with a single transmitter.
>The PA tubes are taller than a man.

That monster transmitter dates from WLW's attempt back in the '30s to become a
"super clear channel" station. They lobbied the FCC, and for a while had
permission to run 500kW to serve all the farmers who had no other reliable
coverage.

The experiment ended after a relatively short time -- I assume the
other regional stations didn't like it -- but the transmitter lived on. BTW,
Crosley Radio was in Cincinnati and they built the WLW transmitters, as well
as the original ones at the VOA Bethany relay station, just down the road
from WLW.

John

End of Info-Hams Digest V93 #1403

